It's a tough situation because number one, the activity that is going on here is sewage treatment and that is important to the tribes. Because we meet with (King County) prior to their project(s) and understand the importance of sending clean effluent into the sound for our shellfish and salmon resources, we have to weigh that against the importance of the cultural sites as well. *Tribal Member and Archeologist*

King County views the Tribal Initiatives Program as a successful relationship with local tribal governments to cooperate on water quality projects and cultural resource protection not only now, but also in the future.

Note

* Dennis E. Lewarch, Lynn L. Larson, Leonard A. Forsman, Guy F. Moura, Eric W. Bangs, and Paula Mohr Johnson. 1996 Kings County Department of Natural resources, Water Pollution Control Division, Alki Transfer/CSO Project: Allentown Site (45KI431) and White Lake Site (45KI438 and 45KI438A) Data Recovery. Larson Anthropological/Archaeological Services. LAAS Technical Report #95-8.

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Denise McLemore and Robert J. Jackson

Buying the FARM

A Forest Service Model for Legal Compliance

The Pacific Southwest Region of the United States Forest Service (Region 5) recently celebrated its 25th anniversary of Heritage Resources Management (HRM). During this period, the nature and structure of Forest Service management have slowly evolved in response to political, legal, regulatory, and scholarly influences. This evolution has, in the last five years, culminated in dramatic and fundamental program changes on Region 5 forests of the North Central Sierra Nevada. These program changes are described in the *Framework for Archaeological Research and Management-FARM.** The FARM approach accomplishes a number of objectives: it streamlines compliance; it enables heritage resources to be more easily integrated with other laws and regulations; it provides context for decisionmaking and management; it establishes a process that considers the broad range of public interests and cultural values; the FARM provides specific management tools; it emphasizes standard data collection and treatment approaches; and it provides management tools and structure for implementing ecosystem management and research.

* Robert J. Jackson with Thomas L. Jackson, Charles Miksicek, Kristina Roper, and Dwight Simons, *Framework for Archaeological Research and Management for the National Forests of the North-Central Sierra Nevada* (BioSystems Analysis, Inc., 1994).

The Eldorado National Forest "bought the FARM" after more than 10 years of data collection during the course of project-related cultural resources management activities consisting primarily of surface inventories. The handful of excavations that had occurred at selected sites were limited to a few cubic meters of excavation, at most, and those data were seldom applied to regional or higher order analyses. It became clear that if the Eldorado National Forest was to begin a serious program of evaluation, a research design was critically needed. We sought a "regional" research design sufficient to allow studies of broad cultural patterns, while focused enough to distinguish local variations in such patterns. It was soon apparent that a research design limited only to the Eldorado would not provide a sufficiently broad regional context. A management component was also recognized as an important component of forest planning, since any research design would be implemented within a management context.

Eldorado Forest archeologists hosted a meeting with forest archeologists from neighboring forests to determine the boundaries for a "regional" research design and settled on the North-Central Sierra Nevada, which includes four national forests: Eldorado, Stanislaus, Tahoe, and Lake Tahoe Management Unit. These selections recognized shared overlapping ethnographic cultural boundaries, similar ecological units, similar

site types, and similar management issues for the four Forest Service management units.

When financing became available through timber salvage funds, the Eldorado contracted for the preparation of a North-Central Sierra Nevada Research Design for prehistoric sites. The participation of both regional academic and contract researchers outside of the agency was recognized as central to developing a thoughtful research design that would be widely accepted and used. Toward that end, the Eldorado sponsored workshops that included a range of regional researchers and managers to provide input throughout the plan development process. Early in the planning process it became clear that Forest Service archeologists and regional researchers alike wanted something rather different from the "standard" research design. The forests desired guidance to implement the forests' prehistoric archeological management efforts to more thoughtfully, effectively, and efficiently consider the values associated with archeological sites. Although the FARM focuses on the values associated with prehistoric archeological resources, its principles and management strategies are equally relevant to the full spectrum of heritage resources.

The FARM is guided by the following principles:

- Archeological properties have inherent value as representations of our past for Native Americans, academic researchers, and the public. Barring conflicting land use interests, preservation for future use is the desired condition of archeological properties.
- Not all archeological properties are valued equally.
- Management of archeological properties should balance conflicting public interests within forest planning processes according to the type and relative value associated with each property to arrive at a desired condition or use for each resource.
- Archeological resource management involves the selection of management options that achieve the desired condition and uses of archeological sites.

The eight volumes which comprise the FARM cannot be easily or quickly summarized. Following are selected features that demonstrate its utility.

Planning /HREZs

Integration with planning efforts is enabled through use of Heritage Resource Emphasis Zones (HREZs). Based on a review of existing heritage information, the forests or sub-region is zoned into geographic areas based on predominant heritage resource classes (e.g., historic roads and trails, lithic scatters, mining), much like cities are zoned as commercial, residential, or industrial. These zones (HREZs) identify the diversity of heritage resources known and expected, and they alert forest planners to possible land use constraints, allowing them to budget, schedule, and anticipate the outcome of heritage resource studies. HREZs can also identify areas for which little information exists and areas where certain information needs to be developed. An identification of data gaps may assist the forests in developing a long-term strategy that may be integrated in their day-to-day and project-specific planning and management process. At the project level, HREZs assist in developing inventory strategies and identifying the particular technical expertise that would be most appropriate.

Identification

Identification of heritage resources for specific undertakings is guided by the concept of **resources of interest**. Resources of interest are classes of heritage resources that have a reasonable potential to be affected by the land use activity under consideration. Exclusion of a particular site type as a resource of interest does not mean it is unimportant or that standard baseline information should not be recorded. It merely means that heritage resources belonging to that class may not be sought and considered for the land use activity in question. Future land use activities with different potentials for damage may prompt the identification of resources of interest that were excluded from previous studies. In this way, inventory strategies may be focused to make the most efficient use of time and funds.

To determine which resource types are most likely to be affected by a specific project, it is necessary to understand the project type and its components. An essential component of project planning is to identify and understand the type of project proposed; its likely impacts; the objective of the identification effort (i.e., project planning, research); the types of resources likely to be situated within the study area (HREZs will be helpful in this effort); and the fragility of those resources. Inventory strategies are designed based on the studies and methods necessary to identify those resources.

Using this approach, previously inventoried areas may require re-entry for additional archeological survey if previous inventory is not adequate for locating resources of interest for a new project. Re-examination of previously inventoried ground is appropriate in forested environments such as the Sierra Nevada, where ground visibility is often obscured by thick duff and dead-fall. For example,

it is not uncommon to find twice the number of archeological sites in previously inventoried areas following a wildfire. The FARM "resources of interest" approach accommodates the practical needs of management while promoting optimally useful professional methods.

Standardized Data Collection

In the North-Central Sierra Nevada, value laden descriptions of field inventory such as complete, general, and cursory, provide limited help in assessing the adequacy of previous inventory efforts or determining methods adequate to identify resources of interest. "Complete" survey may be misconstrued as thorough examination of the ground surface, which is seldom possible in forested environments. Such ascriptions needlessly complicate our explanation to forest project managers when it is professionally appropriate to reexamine an area. More exacting descriptive terminology is provided in the FARM to allow the professional to reliably determine the adequacy of previous inventory and to designate appropriate observing distances and techniques to locate resources of interest. For example, surface coverage types include surface-intensive (transect interval <15 m); surface-30 (transect interval 15-30 m); surface-50 (transect interval 30-50 m); surface-broad (transect interval 50-80 m). Enhanced inventory is the term used to describe surface scrapes, shovel transect units, shovel probes, augers, or even backhoes to locate buried deposits.

While a variety of methods are advocated for archeological investigations, standard practices are necessary to produce comparative baseline data for archeological sites in a region. Significant progress toward understanding regional patterns of prehistoric land use and the evolution of prehistoric cultural systems can be made only through standard data collection and the comprehensive examination of a wide variety of regional archeological phenomena. In examining the site record database for the North-Central Sierra Nevada, we soon realized that much of the data were not comparable because of the dissimilarities in description and application of archeological methods and techniques. The FARM remedies this problem by providing standards and guidelines for conducting archeological research, including a detailed menu of standardized data collection methods and techniques for surface and subsurface archeological investigations. The explicit design and implementation of research remains within the purview of the researcher; however, the FARM enables a common understanding and sharing of the results.

An Alternative to NRHP Criteria

The FARM provides a comprehensive and relatively fine-grained system for archeological resource evaluation that considers a wider range of cultural values than the National Register of Historic Places (NRHP) criteria, and recognizes that those values are not absolute but occur as a spectrum. The target (page 19) illustrates the range of cultural values associated with heritage resources.

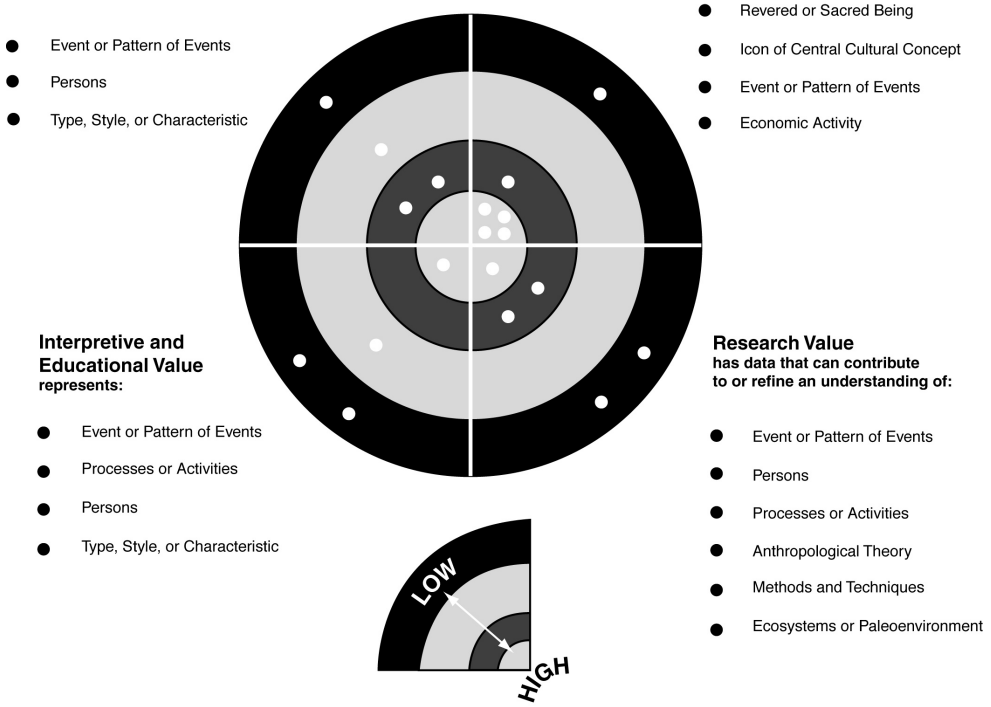
Values can be segregated by type (heritage appreciation, traditional, interpretive, and research). Each of these types, in turn, has several subcategories by which archeological resources can be valued. Note that there are parallels to NRHP criteria for most of the subcategories (e.g., events or patterns of events, persons, types, styles, or characteristics), however, with added criteria going beyond the NRHP. Each type of value is represented in a quadrant of the target. The bullseye depicts high cultural values, and the black ring of the target depicts low cultural values. Each of the "holes" in the target signify an expressed or identified value. If many "holes" lie close to the bullseye, the resource is highly important in that value category. The degrees of importance may vary, however, for each category. Traditional properties, for example, may be represented by people ascribing values to a resource; each "hole" in the target portrays a person's stated value, and the location of the "hole" characterizes the stated importance of that value. The research category measures the potential to contribute to different research domains. Thus, an archeological site valuable for research may have high value in addressing chronological and paleoenvironmental issues, but low value for contributing to an understanding of subsistence or social organization.

The FARM is fully implemented through a Programmatic Agreement Among the U.S.D.A.Forest Service, Pacific Southwest Region, California State Historic Preservation Officer, and Advisory Council on Historic Preservation Regarding the Identification, Evaluation and Treatment of Historic Properties Managed by the National Forests of the Sierra Nevada, California (PA). This PA offers many benefits to the forests.

The streamlined Section 106 compliance process, greater flexibility in professional and managerial decisionmaking, and standardized approaches have proven to be efficient and resulted in huge cost savings to participating forests. Such benefits, however, do not come without obligations. The PA requires a more balanced program of heritage resource management and increased emphasis on compliance with Section

110 responsibilities to proactively manage heritage resources through evaluation, interpretation, historic building rehabilitation, public participation, and research.

them in the document. We believed this to be the most productive and pragmatic approach, but we learned along the way that archeologists are, perhaps, the only professionals more resistant to



Heritage Resource Evaluation Target.

Implementation.

Although the PA provides the legal means, there are other intervening factors that inhibit the FARM's full implementation. We recognize that other elements such as historic archeology and ethnology need to be added to the research design to make it appropriately comprehensive, and some sections need further expansion. Those elements, however, are not the most serious impediments. From the outset of FARM development, our approach was one of inclusion. We solicited involvement of a wide variety of academic, agency, and contract researchers. We consulted with reviewing agencies such as the California State Office of Historic Preservation and the Advisory Council on Historic Preservation. In developing key concepts and principles, we periodically sought the opinion and advice of various Forest Service managers, including Line Officers, Forest Supervisors, and the Regional Forester. We felt it would enhance successful implementation if we could identify management concerns and address

change than lawyers. There is a strong reluctance by many archeologists to give up their idiosyncratic methods of data collection and reporting. The FARM calls for standardized data collection and descriptive terminology, and it offers programmatic treatments for certain classes of sites. Many branded standardized data collection as "prescriptive" or "cookbook" archeology. However, such criticisms are most often levied by those who either have not read the FARM and are unclear on its concepts and procedures, or are simply satisfied with their own traditional mode of operation and are unwilling to change. The procedures and processes of the FARM are open to constructive criticism and revision, and we welcome input resulting from good faith efforts to use or thoughtfully appraise the FARM.

Forest Service management at all levels have been supportive of the FARM in principle, although moral support has yet to translate to funding for full implementation. The FARM, like any new strategy, must be thoroughly tested before it can be accepted as fully functional.

Unfortunately, we have not had the financial support to fully implement all aspects. Over four years have elapsed since its completion, and the research design needs to be further developed and updated before it can more completely facilitate coordinated research efforts, in light of several regional studies that have occurred in the intervening time. The FARM's utility to contract archeologists working in the North-Central Sierra is also largely untested because of the current paucity of contract work. The management strategy will be fully implemented when we develop research designs for the full spectrum of heritage resource types. This absence of research designs for these other resource types results from the lack of appropriate expertise and budget constraints that are unlikely to be available in the near future.

We have highlighted some of the major features of the FARM in this article, but not all. There are additional features such as programmatic treatments of certain classes of archeological properties common to the Sierra Nevada (i.e., bedrock milling stations and surface lithic scatters); programmatic treatments for certain classes of undertakings (e.g., prescribed fire, grazing, roads and trails); and methods for balancing conflicting cultural and other public land use interests within a context that is understandable to management.

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National Historic Preservation Act Compliance

Comparison of the Section 106 Process and the FARM/Sierra Nevada PA Process

SECTION 106 PROCESS	FARM/SIERRA NEVADA PA PROCESS
Inventory:	**Inventory:**
All projects subject to inventory	Many activities are categorically screened or exempted.
Inventories must locate all resources in the project area.	Inventories may be limited to resources of interest, thus reducing survey acreage.
Consult with SHPO regarding area of potential effect	No consultation required.
If project is already inventoried, prepare report, submit to SHPO for 30 day review and concurrence.	No consultation required
If project inventory results in negative findings (no sites), prepare report, submit to SHPO for 30 day review.	Prepare report, in-house review and approval, then project may proceed.
If inventory identifies sites which can be routinely avoided, evaluate sites, consult with SHPO, 30-45 day review period required.	No consultation required. Evaluation not required for sites that will be avoided.
Evaluation:	**Evaluation:**
All project area sites need to be evaluated, 30 day SHPO review period for concurrence.	Evaluation not required if standard protection measures are applied.
All sites subject to impact must be evaluated, and submitted for 30-45 day SHPO review.	Variance for FARM CARIDAP site evaluations. Use standardized methods. No SHPO consultation required.
Site evaluation using National Register Criteria (36CFR60).	Option to evaluate using FARM methods to identify cultural values.
Must evaluate entire site, even when only a portion of the site may be affected.	Alternative FARM approach allows for identification of the data potentials for only the portion of the site that may be affected, if appropriate.